

focus on *Fish & Wildlife*

What about bob? – wild cat research update

For many years, bobcats have been viewed as mysterious creatures, rarely heard and even more rarely seen. A state endangered species since 1970, the bobcat has always been a part of the Indiana landscape.

The bobcat is primarily nocturnal with a territorial range reaching 25 square miles, making its contact with humans minimal. These secretive animals do not pose a threat to humans. In fact, they benefit us by eating small to medium-sized rodents such as mice, rats, squirrels and chipmunks.

The DNR Division of Fish and Wildlife created a bobcat database in 1989 to compile records of bobcat sightings. Confirmed and unconfirmed sightings provide clues

regarding where bobcats live in Indiana and what type of habitat they utilize. During the last three years, the number of bobcat reports have increased sharply. Realizing that the increase in reports could signal an increase in the population, the DNR decided to launch a bobcat population study.

Scott Johnson, biologist for the Division of Fish and Wildlife, began the study in Dec. 1998. He is trapping the elusive cats, fitting them with radio collars and injecting them with microchips designed to identify each individual. The microchip is similar to those offered by many veterinarians for dogs and cats. After the animals are collared, biologists track their movements from the ground and by helicopter in order to better determine their range and habitat needs.

The first phase of the study is focused on south-central Indiana where the highest percentage of confirmed sightings have been reported. Six different properties in three counties were chosen—four are privately owned, one is commercially owned by International Paper, and the third is the publicly owned Crane Naval Surface Warfare Center. Each of these land owners have helped the project greatly by allowing biologists to look for bobcats on their land.

continued on page 3



Bobcat kitten trapped in south central Indiana this Feb. by DNR biologists. Nine bobcats were trapped and released this past winter.

Topics this issue...

Record fish program

Indiana's natural lakes

Quail and pheasant update

Whooping cranes in Indiana

Director of *Fish & Wildlife*



Security for all our wildlife

Good things are migrating through Washington, D.C. Friends of wildlife from both political parties in the U.S. House of Representatives pulled together on May 11 and passed CARA (H.R. 701) by a margin of three to one. CARA stands for Conservation and Reinvestment Act. The legislation would direct existing funds generated from offshore oil production toward helping wildlife. Indiana Representatives Tim Roemer, Julia Carson, Mark Souder, Edward Pease, and Baron Hill voted for CARA.

The Senate is poised to consider an identical bill, S.2123, co-sponsored by Indiana Senator Evan Bayh.

Senator Frank Murkowski, chairman of the Senate Committee on Energy and Natural Resources says, "The beauty of this landmark conservation bill is that all states benefit—not just coastal states, but also interior mountain states, and not just urban areas, but also rural America. I intend to do all I can to use the momentum of the House success to report a bill from the Energy and Natural Resources Committee and move it to the Senate floor."

David Waller, president of the International Association of Fish and Wildlife Agencies and director of Georgia's Division of Wildlife Resources adds, "This is one of the biggest victories for wildlife in the last 100 years. It creates a safety net for the nation's imperiled wildlife and the habitat they depend on. For wildlife, this is on a par with the establishment of the social security system."

CARA legislation would bring a projected \$32 million per year to the Indiana for state and local parks, wildlife conservation, Lake Michigan watershed restoration, historic preservation and wildlife-related education and recreation.

Teddy Roosevelt believed that America's wildlife was one of its greatest assets. CARA can fulfill his vision of protecting wildlife in the 21st century and can prevent species from becoming endangered in Indiana.

Indiana Teaming With Wildlife Coalition members actively wrote and called their members of Congress and encouraged local mayors to send resolutions of support for CARA to Washington, D.C.

For more information on the legislation and the coalition, call Betsy Ingle at (317) 232-4080 or e-mail: ingle@fw.dnr.state.in.us, or check websites: www.teaming.com and www.senate.gov/~energy/.

Gary Duxtater

Mission

To manage fish and
wildlife for present
and future
generations,

balancing ecological, recreational and
economic benefits.



Focus on Fish & Wildlife is a quarterly publication from the Indiana Department of Natural Resources Division of Fish and Wildlife. *Focus on Fish & Wildlife* seeks to educate sportsmen and women, conservationists, wildlife recreationists and all Hoosiers on topics related to the management of Indiana's fish and wildlife resources.

Larry D. Macklin

Department of Natural Resources
Director

Gary Duxtater

Division of Fish and Wildlife Director

Jon Marshall

Public Affairs Chief

Michael Ellis, Editor

John Maxwell, Photographer

Rebecca Mauser, Designer

Focus on Fish & Wildlife is distributed free of charge. To subscribe, send name, complete address, city, state and zip code. Send address changes or subscription requests to:

Focus on Fish & Wildlife
402 W. Washington St., Room W273
Indianapolis, IN 46204

If you have questions, please write to the above address or call (317) 232-4080.

Visit the DNR
Division of Fish & Wildlife website:
[www.ai.org/dnr/fishwild/
index.html](http://www.ai.org/dnr/fishwild/index.html)



Printed on recycled paper

Bobcats . . .

Continued from page 1 –

The first field season, Dec. 1998 through Feb. 1999, resulted in the capture of one male bobcat. He was outfitted with a radio collar and then tracked for the remainder of the year. Information about this cat's habitat was used to determine trap sites for the next field season, which began in Dec. 1999. Traps were set in specific types of habitat that produced captures the year before. This appeared to make a difference in the success rate of cat captures. Other changes contributing to the recent season's success included the use of new scent lures and authentic bobcat urine to attract the cats to traps, as well as use of information from property owners about where they had seen bobcats.

Nine cats were caught, including the recapture of the first male for replacement of his radio collar. Seven adults, three males and four females, are currently equipped with radio collars. The other two captures were kittens, one male and one female. The kittens were too small for collars. They were injected with microchips for future identification.

Although most of the adults have only been collared for a few months, their movements are already giving biologists information. The bobcats are fairly active, with a recently caught male traveling approximately



15 miles between his farthest known points and the first male caught traveling between points approximately 11 miles apart. Many of the cats' territories overlap and biologists believe that the cats are aware of each other.

The bobcat population study is scheduled to run for several years. Results will help biologists develop management guidelines for continued bobcat conservation. The bobcat project's funding comes primarily from contributions to the Endangered Wildlife Fund through the state income tax form.

Article prepared by Scott Johnson and Kathy Quimbach, Division of Fish and Wildlife

Bobcat Factoids

- Bobcats are one of the smaller wild cats, weighing between 15 and 25 pounds and ranging in length from 30 to 40 inches.
- They stand two feet tall at the shoulder.
- Their fur is reddish-brown above and whitish below with black spots or streaks throughout the coat.
- Two main identifying characteristics of this cat are the large fur tufts on the cheeks and the 4-5 inch long stubby tail.



Adult bobcat (above) – cheek fur tufts are one of the notable characteristics of bobcats. A bobcat kitten (left) appears very similar to a house cat kitten, but another main distinguishing bobcat feature, a stubby tail, gives it away.

focus on *Indiana's Fish of the Year Program*

The big ones don't always get away—and now you can prove it

In 1999, 40 proud anglers reported fish catches to Indiana's two record fish programs. These catches included a remarkable seven new state records. While these state records are certainly something to crow about, only 40 entries from a million-some different anglers seems a bit low. Most bait shops have more pictures of big fish around their pop machine.

Perhaps many anglers don't realize their fish could be eligible for Fish-of-the-Year honors even if it isn't larger than the state record. The DNR's Fish of the Year program recognizes anglers who catch the largest fish each year in 45 different categories. Yet no entries for 1999 Fish of the Year were submitted for popular fish such as redear sunfish and white bass, and only a few entries were received for largemouth bass, smallmouth bass, bluegill, walleye and crappie.

Catch and release anglers also may not yet know that new procedures

allow them to enter their big fish. A fish's weight is no longer required for Fish of the Year. Weight measurement on a certified scale is still required for state record consideration.

There's no cost to submit your catch as a state record fish or as a fish of the year. Procedures for submitting an entry are in the DNR's free *2000 Fishing Guide*, available wherever fishing licenses are sold, or check the Division of Fish and Wildlife's web page at www.ai.org/dnr/fishwild/index.htm.

Your information will be added to state record fish data and lore collected since the early 1960s — records that show the largemouth bass state record has been broken six times since the first 10-pound, 5-ounce record was set in 1963. The latest lunker largemouth record was set in 1991, when Jennifer Schultz of Louisville, Ky., used a Rebel Pop-R lure to catch a 14-pound, 12-ounce

tackle buster from a Harrison County pond.

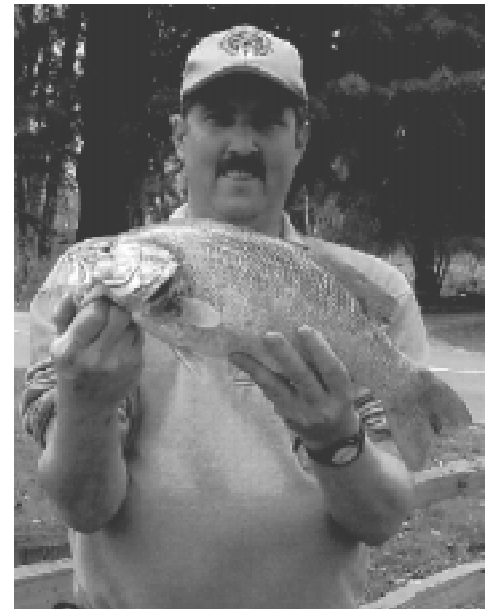
Your fish story could be added to state annals that say our steelhead trout record was broken twice within a 45 minute period in 1981. Or your tale could be added to a similar amazing catfish story from last year — the story about Bruce Midkiff from Owensboro, Ky., wrestling a 104-pound monster blue catfish from the Ohio River, a record that bested the former record set the very same day below the same dam.

These historical records also show March, April, May and June appear to be the best months to catch large bluegill. All four state records were taken early in the fishing season. Big catfish are usually taken in July and Aug. And entries from across the state show every region capable of producing a big fish.

Article prepared by **Randy Lang**, fisheries biologist, Division of Fish and Wildlife



◀ Bruce Midkiff (left) of Owensboro, Ky., hefts his Indiana state record blue catfish. Midkiff's story of catching two monster blue catfish at the same time, and how the bigger fish bested a state record set the same day below the same dam, is one of many amazing state record fish stories.



▲ Anglers are eligible for Fish-of-the-Year honors even if their fish is smaller than the state record. So far, entries for 2000 Fish of the Year include St. Paul, Ind., angler Melody Adams' 23.5-inch largemouth bass (she listed the girth as "fat"), and Porter, Ind. resident David Fronczak's near-18-inch Lake Michigan smallmouth bass. Both fish were caught in April.

focus on

The Measure of Man and Fish

Friends at *Weights and Measures* help track state's biggest fish

Larry Stump is in charge of scales for Indiana's biggest scaly critters. As the state employee in charge of weights and measures, Stump has gone the extra certified mile to ensure the weight accuracy of fish entered in the DNR's record fish program, while other official duties guarantee Hoosier motorists get a proper gallon of gas at the pump or a true pound of meat at the market.

For almost 40 years, Indiana's record fish program has recorded the largest fish of 45 different species caught with hook and line in Indiana. The DNR receives about 30 new submissions every year, and many of these submissions need checking.

"Every few years, a possible state record fish is not properly weighed," says DNR fisheries biologist Randy Lang. "Sometimes fish are caught after markets have closed, or they're caught in some out-of-the-way place where a certified scale is not available. Most scales used by sport anglers are not accurate." Lang is charged with tracking record fish for the DNR Division of Fish and Wildlife.

This is where Indiana State Department of Health Division of Weights and Measures director Larry

Stump weighs in. The inspector from Upland, Ind., and his staff roam the state checking the accuracy of business scales, gasoline pumps and gasoline octane ratings. Stump's crew and local inspectors check scale accuracy against indisputable official United States Department of Commerce weights.

"The first time I called weights and measures for a scale check, I thought we'd get the bureaucratic run-around, but not so," says Lang. "Larry has always gone out of his way to get someone out to check the scale within 24 hours."

Scale checks by weights and measures inspectors have bolstered some notable state records, while they have debunked a few others. In 1996, a state record blue catfish caught from Gibson County's portion of the Wabash River was weighed on an uncertified farm scale. The entry by local anglers Dennis Hoehn and Steve Carner for official biggest fish would have been rejected without Stump's help. Stump called around and soon found a Vanderburgh County weights and measures inspector who verified the accuracy of the scale.

Carl Albuquerque's state record Tippecanoe River hybrid striped bass could have been knocked from the state record books in 1999. Lang received an entry form that May reporting a hybrid catch heavier than Albuquerque's fish, but a check of the uncertified scale at the bait shop revealed more than one-half pound variance at the reported weight.

Lang has some tips for anglers seeking a certified scale. He says check the meat sections in markets or grocery stores. A certified scale should have



A certified scale should have a current state or local weights and measures inspector approval sticker.

a current sticker on it from a state or local weights and measures inspector. Businesses selling propane, which is sold by weight, are good bets for anglers needing a heavy duty scale. Or try hardware and grain stores, which often sell merchandise using certified scales.

Lang also cautions anglers not to freeze a possible record fish until after it is weighed on a certified scale. Freezing can alter a fish's weight. After weighing, the fish can be gutted and iced, but anglers should not cut up or fillet the fish until the species is verified by a Division of Fish and Wildlife fisheries biologist (a fish recently entered as a new state record brook trout turned out to be a bowfin).

Stump says if you can't find a certified scale, give him a call on a weekday at (317) 356-7078, and he'll direct you to a nearby accurate scale, or he can even have an inspector meet you somewhere. Most inspectors carry scales that can handle items up to 30 pounds. If you have a bigger fish, Stump says the scale at their shop on the eastside of Indianapolis can handle fish up to 500 pounds.

Stump says he loves to fish. So perhaps the best and most pleasant way to ensure your fish is properly measured is to invite Larry and his scale to go fishing with you. A state record fish entry form with a Larry Stump signature is guaranteed accurate.



Indiana Division of Weights and Measures director Larry Stump checks a scale's accuracy. Stump has helped Hoosier anglers accurately measure record fish catches.

Prepared by John Maxwell, program director, Division of Fish and Wildlife

focus on *Indiana's Glacial Lakes*

Where fishing is naturally good

Indiana has a variety of natural resource treasures including large rivers, national forest lands, southern hills, and Lake Michigan. Inland natural lakes are an abundant yet overlooked resource within our state.

Natural lakes in Indiana are of glacial origin and may be 8,000 to 14,000 years old. As the last glacier advanced across northern Indiana, sheets of ice and rock smoothed out the landscape. As the glacier retreated, ice chunks of various sizes were left behind to melt in the warmer climate. The water-filled depressions left behind were natural lakes. The size and depth of the lake today is directly related to the size of the ice deposit.

Natural lakes formed by the Laurentian glaciers extend from the Dakotas to New England with very little extension to the south. Our neighbor of equal latitude to the east, Ohio, possesses only five natural lakes within its boundaries. Approximately 100 natural lakes exist

in neighboring Illinois to the west, with most located in the very northeastern corner of the state. Of course, Michigan, Wisconsin, Minnesota, and portions of Canada house the majority of the glacial lakes. So where does that leave Indiana? Roughly two-thirds of Indiana was affected by the glacier from about the 38th parallel northward (south of Indianapolis to the Michigan border). Many glacial lobes advanced across this part of the state. As the Huron-Saginaw lobe of one of these glaciers retreated, it left behind the majority of our approximately 452 natural lakes.

Our natural lakes come in all sizes and shapes and are scattered from Lake County, southeast to Cass County, and northeast to Steuben County. Noble County has the most natural lakes with 117, followed by Steuben, which has 92, and Kosciusko, which has 63. Many of these lakes exist along Indiana's own "continental divide," and drain either



to the Great Lakes to the north or the Mississippi River to the south. Most of the lakes in the Great Lakes watershed flow to Lake Michigan via the Elkhart and St. Joseph Rivers, although a few drain to Lake Erie via the Maumee River. The Tippecanoe, Eel, and Wabash River systems transport the water from the lakes on the south side of the divide and carry it to the Gulf of Mexico.

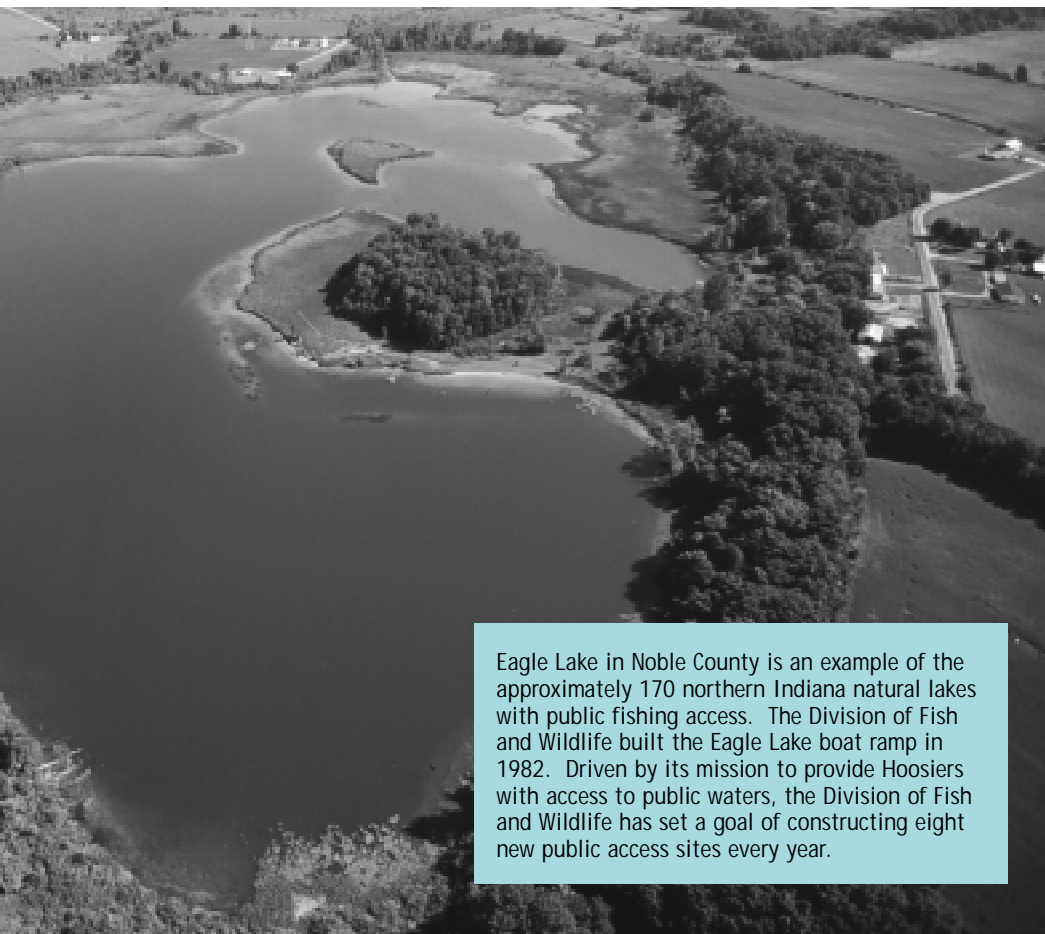
A natural lake can be small in size, such as the 10-acre Cub Lake in Kosciusko County, or large, such as nearby Lake Wawasee at 3,410 acres. Other large natural lakes in Indiana include:

- Maxinkuckee – 1,854 acres
- Bass – 1,440 acres
- Manitou – 1,156 acres
- James – 1,034 acres

The appropriately named Lake Galacia is a 17-acre natural lake in Grant County near the town of Fairmount. It is believed to be the



The author nets a northern pike while surveying a natural lake. The northern pike is a native game fish unique in Indiana to the state's northern natural lakes and streams.



Eagle Lake in Noble County is an example of the approximately 170 northern Indiana natural lakes with public fishing access. The Division of Fish and Wildlife built the Eagle Lake boat ramp in 1982. Driven by its mission to provide Hoosiers with access to public waters, the Division of Fish and Wildlife has set a goal of constructing eight new public access sites every year.

southern-most natural lake in Indiana, which means it might have been the first to form after the glacial retreat.

Despite their appearance, natural lakes are not all the same. Some are clear (Maxinkuckee) and others are turbid (West Lakes Chain). Most lakes are moderately fertile. Less fertile lakes are deep and have small watersheds, marl or sand bottoms, and more oxygen (Crooked Lake, Whitley County). Highly fertile lakes are usually shallow with large watersheds, muck bottoms and dense aquatic plant growth (Shipshewana Lake, Lagrange County). These differences influence fish communities. The quality of each lake is a reflection of its watershed. Problems that affect lakes often begin with poor watershed management.

Many of the deeper natural lakes in Indiana go through a stratification process with coinciding water temperature changes. Temperatures of the water remain uniform in the winter, but as the spring and summer progresses, warmer water moves to the top of the lake while the heavier, colder water sinks below the top

layer. Thus, a deep natural lake of any size may be close to 80 degrees at the surface in the middle of summer, yet around 40 degrees near the bottom with temperatures declining with descent through the water column. This affects fish behavior since diffused oxygen in the water decreases along with temperature decrease. Division of Fish and

Wildlife biologists recognize this and use various fish capture gear according to these water temperatures to get an accurate picture of the aquatic species community.

Roughly 67 fish species are known to occur in our natural lakes. The most common of the native game species include largemouth and smallmouth bass, bluegill, black and white crappie, and northern pike. Some species, such as the northern pike and cisco, are not native to any waters south of Indiana's natural lake region in the northern hemisphere. The Division of Fish and Wildlife has introduced a number of species to the natural lakes to provide additional angling opportunities including muskellunge, rainbow trout, walleye, and redear sunfish.

Indiana's natural lake region is a wonderful area to vacation or simply drive to for the weekend or even a day. About 170 of Indiana's natural lakes are accessible through public access sites. Privately owned access sites provide additional opportunity. Whether you prefer to haul a large boat, paddle around a chain of lakes in a canoe, or simply fish from shore, Indiana natural lakes provide opportunity for all interests.

Article prepared by Tim A. Cwalinski, fisheries biologist with the DNR Division of Fish and Wildlife.

Of glacial proportions:

Indiana's natural glacial lakes . . .

- Make up 42,000 surface acres
- Are found in 18 counties
- Are located mainly in Steuben, Lagrange, Noble and Kosciusko counties
- Typically contain 25-30 different fish species

The largest natural lake is Lake Wawasee at 3,400 acres. The deepest is Lake Tippecanoe at 123 feet. Most of Indiana's glacier-formed lakes are fewer than 100 acres.

focus on

Quail and Pheasant Update

Declining habitat draws attention from conservation partners

Whether you're an upland bird hunter or not, you may already know that Indiana's pheasant and quail populations aren't what they used to be.

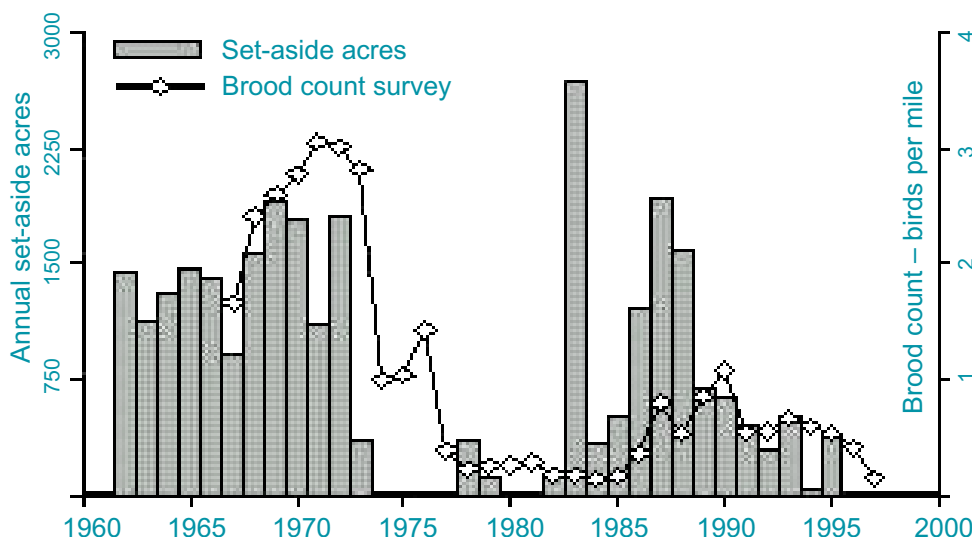
If you're fortunate enough to live in rural Indiana, try this: some morning on your way to work next week, roll down your window. Turn off the radio. Drive a little slower. Listen for that whistled birdsong that for decades has drawn a line between spring and summer on Indiana farms. That *bob-bob-white* tune ought to be, but more frequently isn't, one of the most common melodies that catches and holds your attention.

Yes, we still have a few places where a bird dog is likely to be confused by the scent of a bird too many. But those places have grown increasingly rare. So, what has happened? Where have our upland birds gone? Three factors have driven their decline: Habitat, habitat, and habitat. To put it another way, our birds have gone the way of the plow.

Some 50-plus years ago, the face of Midwest agriculture was marked by pasture and the occasionally idled field. Our Midwest landscape changed with surprising speed to meet the needs of a war-driven economy and the recovery that followed. Rowcrops rapidly pushed aside weedy old-fields, pastures, and woody shrubs – squeezing these habitats, and the birds they sheltered, into edges and fencerows.

Reprieves won through the farmland set-aside programs of the late '60s produced a resurgence in quail and pheasant numbers throughout the Midwest—Indiana included. But, in recent decades, as farming practices have moved toward even cleaner fields and the removal of fencerows, fewer birds are produced by still fewer places where birds can make a living.

In 1999, when conducting a crowing pheasant survey, biologists heard an average of 1.4 roosters per



survey stop. That is 64 percent below the long-term average of 3.88 for these routes between 1976 and 1999. The results of last year's bobwhite survey came out looking much the same.

Looking at those long-term trends, particularly over the last 25 to 30 years, the relationship between acres of habitat and upland bird numbers is unavoidably real. Follow the graph above that depicts the results of our pheasant brood survey.

The survey results are represented by the line that spans across the years from 1967 to 1999. Bars on this graph represent the acres of set-aside habitats in those counties in which we conduct these annual surveys. It ought to be unmistakable: fewer places to live means fewer jobs for prospective bobwhites, fewer jobs for would-be pheasants.

There are several reasons why the outlook for upland birds in Indiana might just be positive. The Division of Fish and Wildlife is placing new emphasis on assisting private landowners. Conservation measures within the Farm Bill, along with increased funding, should enable the Natural Resource Conservation Service to provide real incentives for landowners to implement conservation practices. Cost-share

programs are also available to financially kick-start habitat projects.

One of the best things to happen for quail and pheasants is the development of conservation organizations such as Quail Unlimited and Pheasants Forever. These groups have assembled an admirable inventory of equipment, experience, and, most importantly, effort to provide landowners with the sort of on-the-ground incentives that can make habitat happen.

Quail Unlimited and Pheasants Forever members' primary qualifications are a willingness to make a difference, acre of habitat by acre of habitat. With local chapters throughout the state, there is no shortage of opportunity for anyone with an interest in upland birds.

The formula for improving Indiana's gamebird populations hinges on three things: making habitat, making habitat, and making more habitat.

For more information contact:

Quail Unlimited
Dave Howell
10364 S 950 E
Stendal, IN 47585
(812) 536-2272

Pheasants Forever
Tom Schwartz
40 Crater Lake Dr.
Springfield, IL 62707
(651) 773-2000

Article prepared by Clark McCreedy, farmland wildlife biologist with the DNR Division of Fish and Wildlife.

focus on

Whooping Cranes in Indiana?

Super duper whooper may fly Indiana skies in future years

A giant, white bird, standing over four feet tall with a wing span over seven feet could soon be appearing in a field near you.

The whooping crane is an endangered species that almost became extinct – all gone, zip, nada, zilch, no more, forever. The whooping crane was there – right on the brink of extinction.

Whooping cranes have always been few in number. Biologists estimate that in the late 19th century there were between 500 to 700 whoopers in the wild – in the only area they are known to exist, North America.

In 1941 there were only 15 whooping cranes still alive in the whole world. With the help of dedicated people working toward restoring the whoopers' habitat, whoopers have slowly increased their nesting and breeding successes in the wild and captivity. Whoopers now number almost 400 birds. This number includes both wild and captive birds. About half (188) of the whoopers are in the one remaining migratory flock that winters along the Texas coast at Aransas National Wildlife Refuge and nests in northern Canada at Woods Buffalo National Park. The rest are in captive breeding

flocks at several locations in North America.

There is an experimental non-migratory flock of whoopers being established in the Kissimmee Prairie region of Florida – the only place in the U.S. where a successful hatching of a whooping crane in the wild has taken place in more than 60 years. This event took place in March of this year. The birth is so rare that officials in Florida are not disclosing the location for fear that gawkers may pose a threat to the young chick's survival. Florida state biologists have kept their distance as well. They have been monitoring the young whooper using a telephoto lens to take pictures.

Wildlife biologists are concerned that a catastrophe such as an oil spill or disease could wipe out the whole migratory flock. They want to establish another migrating flock well away from the existing wild flock. Plans are for this new flock to nest in Wisconsin and winter on the Gulf coast of Florida. They will follow the migration route that eastern greater sandhill cranes use. This route passes through northwest Indiana's Jasper-Pulaski Fish and Wildlife Area. The area is a major stopover location on

the migration corridor.

Young cranes of all species learn the migration route from their parents, but since this new flock will be captive reared with "human" parents dressed in crane costumes, teaching the young whoopers the migration route becomes a little tricky.

The plan is to use a squadron of four ultralight planes to lead the cranes on the migration route, much as a little girl led Canada geese in the movie *Fly Away Home*. To gain experience and iron out any glitches in the migration route, a trial run with sandhill cranes will be attempted first. Plans are being made for the sandhill trial to occur this coming fall, with the whooping crane reintroduction happening in the fall of 2001. With careful planning and help and cooperation from Hoosiers and other states along the way, we can look forward to the time when our grandchildren and great grandchildren can enjoy migrating, awe-inspiring, majestic white birds known as whoopers.

Prepared by Jim and Susan Bergens. Jim is property manager of Jasper-Pulaski Fish and Wildlife Area near Medaryville.



The author snapped this shot of a whooping crane at the International Crane Foundation's headquarters near Baraboo, Wisc. The ICF and many other agencies involved in the project hope to reintroduce wild cranes bred from a captive flock.

Whooping Cranes . . .

- Are the tallest birds in North America. Adult males are five feet tall and weigh 14 to 16 pounds
- Have a wingspan of over seven feet.
- Live up to 25 years in the wild.

For more information on this project, visit:
<http://fathergoose.durham.net/cranes.htm>

focus on *Fish and Wildlife Area Shooting Ranges*

They're right on target!

The DNR is making heavily used shooting ranges safer by staffing them with range safety officers and establishing new safety regulations. All times are EST.

Atterbury FWA rifle/archery/handgun/shotgun (812) 526-2051	Sept. - March 8 a.m. to 5 p.m. April - Aug. 11 a.m. to 7 p.m. Closed Monday and Tuesday
Crosley FWA rifle/archery/handgun/shotgun (812) 346-5596	Sept. - March 8 a.m. to 5 p.m. April - Aug. 7 a.m. to 7 p.m. Open daily
Jasper-Pulaski FWA rifle/archery/handgun/shotgun (219) 843-4841	Sept. - March 8 a.m. to 5 p.m. April - Aug. 8 a.m. to 7 p.m. Closed Monday
LaSalle FWA rifle/archery/shotgun (219) 992-3019	Sept. - March 9 a.m. to 3 p.m. April - Aug. Noon to 7 p.m. Closed Monday and Tuesday
Minnehaha FWA rifle/archery/handgun/shotgun (812) 268-5640	Sept. - March 8 a.m. to 5 p.m. April - Aug. 7 a.m. to 7 p.m. Open daily
Pigeon River FWA rifle/archery/handgun/shotgun (219) 367-2164	Sept. - March 8 a.m. to 5 p.m. April - Aug. 8 a.m. to 7 p.m. Waterfowl season 9 a.m. to 3 p.m. Closed Monday
Sugar Ridge FWA rifle/archery/shotgun (812) 789-2724	Sept. - March 8 a.m. to 5 p.m. April - Aug. 7 a.m. to 7 p.m. Open daily
Tri-County FWA rifle/archery/handgun/shotgun (219) 834-4461	Sept. - March Noon to 5 p.m. April - Aug. Noon to 7 p.m. Open daily
Wilbur Wright FWA rifle/archery (765) 529-9581	Sept. - March 8 a.m. to 5 p.m. April - Aug. 7 a.m. to 7 p.m. Open daily
Willow Slough FWA rifle/handgun/shotgun (219) 285-2704	Sept. - March 8 a.m. to 5 p.m. April - Aug. 11 a.m. to 7 p.m. Closed Monday and Tuesday
Winamac FWA rifle/archery/handgun/shotgun (219) 946-4422	Sept. - March 8 a.m. to 5 p.m. April - Aug. 8 a.m. to 7 p.m. Closed Monday

In addition to providing shooting ranges, the DNR provides grants for the development and maintenance of public shooting ranges. These grants are derived from federal Wildlife Restoration Funds collected from an excise tax on the sale of certain firearms, ammunition and hunting equipment. For more information on Indiana shooting ranges or the range grant program, contact the Division of Fish and Wildlife at (317) 232-4080.

New Shooting Range Regulations

You must follow these rules when using a DNR shooting range:

- Register on site before using a shooting range.
- Shoot only at paper targets placed on target holders provided.
- All firing must be down range with reasonable care taken to assure any projectile is stopped by the range backstop.
- Use shot no larger than size six on a shotgun range.
- Do not discharge firearms using automatic fire.
- Do not use tracer, armor-piercing, or incendiary rounds.

Shooting Practice Tips:

- Practice shooting with the same equipment you use when hunting.
- Practice your range estimating skills to estimate distances accurately.
- Practice shooting at different distances to learn your equipment's ability.
- Wear similar type and quantity of clothing as you would wear while hunting. Practicing in light clothing but hunting in heavy clothes can affect your shooting.
- Practice in various wind conditions. When hunting, you don't have control over the weather. Be prepared ahead of time for windy conditions.

Fish Indiana State Fair



Contractors began enlarging the DNR State Fair building fish tanks this spring.

One of the most popular attractions at the Indiana State Fair will have a new look this year. The DNR Division of Fish and Wildlife's 40-year-old fish display is better than ever with new interactive activities, videos and lots of fishy information.

The new, larger fish tanks highlight aquatic habitats from Lake Michigan to farm ponds to the Ohio River. Stop by the DNR building at the State Fair to see the tremendous diversity of Indiana's aquatic habitats.

Indiana State Fair • Aug. 9 – 20

Anglers surveyed at Brookville Reservoir

DNR biologists began surveying Brookville Lake anglers this April to determine the effects of the 14-inch minimum size limit placed on walleye in 1996. Biologists project the size limit will result in anglers catching larger walleye.

The fish scientists are collecting information on anglers' effort in terms of total hours spent on the lake, and hours spent fishing for each species of fish, as well as what they catch. Surveyors also are interested in where the anglers live and how far they drove to fish. The survey will continue through this October.

Brookville is one of several lakes in Indiana stocked with walleye and is Indiana's source for walleye eggs, providing a dependable source for millions of eggs each spring. Walleye in this lake grow very well, surpassing growth of most other walleye populations, even in Michigan and Wisconsin. However, catching walleye takes knowledge, skill and patience. Walleye are a bottom-loving species, sensitive to light, and primarily active in murky waters at night. Because walleye can readily find an abundance of shad, their main food source in the lake, they frequently must be cleverly

enticed to bite on an angler's hook.

Other species available to anglers in Brookville Lake are: largemouth bass, smallmouth bass, striped bass, bluegill, crappie, and white bass. Although there are not a great number of smallmouth bass in the lake, knowing where to fish for them can result in some nice catches. Smallmouth bass are usually caught in the lower end of the lake in clear water areas, along steeper shorelines.

In recent years, crappies have probably been the most consistently popular fish among anglers in this Whitewater Valley reservoir. In years when crappie angling has been poor, bluegill fishing has exceeded it in popularity.

White bass are fun to fish for on a hot summer day. They can be easily located by keeping an eye out for signs of their feeding activity. White bass seek out schools of small shad and, when they find them, the surface of the water boils with the white bass feeding on the shad. Flip a very small sinking or diving lure into this activity and you should find some fast and furious action.

Article prepared by **Bob Ball**, fisheries biologist with the DNR Division of Fish and Wildlife.

New life jacket requirements

New Indiana boating regulations require that U.S. Coast Guard approved **wearable** personal flotation devices (PFDs) – better known as life jackets – must be carried for each passenger on a boat on public water. The old regulation required carriage of any type of PFD for each passenger, such as boat cushions.

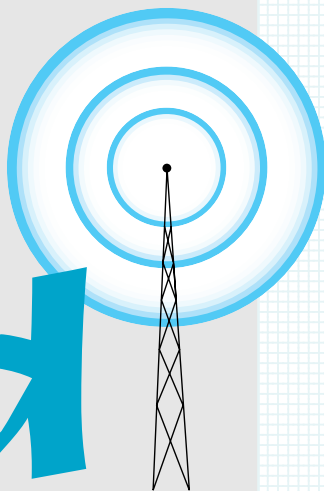
The new PFD law also requires that at least one USCG approved throwable type IV PFD be carried in boats (including canoes) 16 feet and over in addition to life jackets for each passenger.

A "wearable" PFD is any type I, II, III or V. This change brings Indiana law up to U.S. Coast Guard minimum standards.

Anyone operating, riding or being towed by a personal watercraft (Jet ski) must wear a PFD. Inflatable type PFDs should not be worn while riding a PWC since they can cause severe injury to people falling from a PWC at high speed.

SUBSCRIBE TODAY!

Wild bulletin



Find out where the fish are biting, how to spot rare wild birds, and how this year's deer season is shaping up – all through **Wild Bulletin**, a **FREE** e-mail information service offered by the DNR Division of Fish and Wildlife.

Wild Bulletin provides frequent **updates** about Indiana's natural resources and recreation through e-mail. Sign on to receive **information** about hunting and fishing season dates, regulation updates, wildlife and fisheries research status reports, **tips** on wildlife watching and reminders about **IMPORTANT DATES** for Hoosier outdoor enthusiasts. You'll also get updates about new information available on the DNR web page.

To subscribe to **Wild Bulletin**, send an e-mail to: majordomo@ai.org with the message body: **subscribe wildbulletin** <your e-mail address> Leave the subject of the message blank.

To subscribe to **Wild Bulletin** on the DNR web site, go to:
www.state.in.us/dnr/fishwild/index.htm

BULK RATE
U.S. POSTAGE
PAID
INDIANAPOLIS, IN
PERMIT #7429

Address Correction Requested

Division of Fish and Wildlife
Department of Natural Resources
402 W. Washington St., Room W273
Indianapolis, IN 46204
317/232-4080

